

## **ENVIRONMENTAL STATEMENT**

As a socially and environmentally responsible company, Pains Fireworks are committed to reducing the environmental impact of our people, activities and operations.

As well as improving the environmental performance of the company, we are committed to reducing waste, travel and energy usage across all aspects of our business. These actions cover our day-to-day working environment as well as the delivery and production of our displays.

To fully offset the carbon emissions from the displays that we provide, we are partnering with 'Just One Tree', a non-profit organisation who fund the restoration of forests around the globe. Using 'EnvCalc', a tool designed specifically for the firework industry, we calculate the amount of Co2 produced from our displays and then make a donation to which will enable new trees to be planted and offset the carbon produced.

## **USEFUL FACTS & FIGURES**

Reporting by the media on the impact of displays on the environment is often inaccurate with wild claims about the quantities and types of pollutants produced. We would like to dispel these myths using a few simple examples.

Calculations on the amounts of gasses produced by a firework display have been carried out. A pollution calculator is in the process of being produced to allow us to calculate the amount of gasses produced for every display and therefore help us to accurately offset the amount of CO<sub>2</sub> released.

What is very clear is that the amount of gas produced during a display itself is tiny when compared to other elements of an event, such as vehicles (cars, busses, trains etc.) bringing spectators to a display.

## **CARBON FOOTPRINT FROM FIREWORKS**

To give an idea of the carbon footprint of fireworks we have provided the following example: The Net Explosive Quantity (NEQ) of a medium sized fireworks display would be around 20kg. When combusted, this produces approximately 5.43kg of CO<sub>2</sub>. To put this into perspective, average passenger cars produce around 192grams of CO<sub>2</sub> per mile. Therefore, a fireworks display produces around the equivalent of a single car travelling around 25 miles.

## **CARBON FOOTPRINT FROM SFX**

We have also calculated the impact of our LPG flame units which you will see in use all over the UK. At a typical event such as a football match with 10 flames, the amount of LPG used is approximately 10kg. This would produce around 29kg of CO<sub>2</sub>. To put this into context this is comparable to a car travelling 151 miles.

Sources; <a href="https://www.eea.europa.eu/data-and-maps/indicators/average-co2-emissions-from-motor-vehicles/assessment-l">https://www.eea.europa.eu/data-and-maps/indicators/average-co2-emissions-from-motor-vehicles/assessment-l</a>

https://en.wikipedia.org/wiki/Gunpowder